



## STS-115 Launch Weather Forecast

**Vehicle:** STS-115, Atlantis

**Issued:** 5 September 2006/1100Z (0700 EDT)

**Valid:** 6 September 2006 1623 – 1633Z (1223 – 1233 EDT)

**Launch Weather Team:** (321) 853-8484

**Synoptic Discussion:** Today, the ridge over Central Florida will migrate back to the south, the sea breeze will develop near the east coast of Central Florida, and mid-level southerly flow will cause thunderstorms to develop along the western portion of Kennedy Space Center (KSC). The mid-level flow will begin to shift southwesterly by the end of the day, bringing thunderstorms toward the coast late this afternoon or into the evening. On Wednesday, a low pressure area may develop over Central Florida, and moisture in Southeast Florida will pull north offshore of Central Florida. Due to increased moisture potential in the atmosphere, the probability of KSC weather prohibiting launch is higher than yesterday's forecast. Still, the earlier launch window should occur before the more significant afternoon convective activity develops. **Our primary concerns for launch are cumulus clouds within 10NM of Complex 39B and isolated showers within 20NM of the Shuttle Landing Facility (SLF).** The probability of KSC weather prohibiting launch remains the same the following two days due to a frontal boundary lingering in Central Florida. This boundary with the strong upper level winds from the west may cause anvil clouds from thunderstorms in the Gulf of Mexico and along the west coast of Florida to advect east toward KSC.

<u>Clouds</u>	<u>Coverage</u>	<u>Bases (feet)</u>	<u>Tops (feet)</u>
Cumulus	3/8 Scattered	3,000	6,000
Altostratus	2/8 Scattered	10,000	12,000
Cirrus	4/8 Scattered	25,000	26,000
<b>Weather:</b> None.			
<b>Visibility:</b> 7 miles			
<b>Wind:</b> 250° @ 8 - 12 KT (60 foot pad winds)			
<b>Temperature:</b> 85°F		<b>RH:</b> 65%	<b>Dewpoint:</b> 72°F

<b>Probability of KSC weather prohibiting launch:</b>	<b>30%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>10%</b>
<b>Primary concern(s):</b>	Cumulus clouds within 10NM of 39B; showers within 20NM of the SLF.
<b>Probability of KSC weather prohibiting launch for 24-hour delay</b>	<b>30%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>10%</b>
<b>Primary concern(s):</b>	Cumulus clouds; anvils from thunderstorms over the Gulf of Mexico and West Florida.
<b>Probability of KSC weather prohibiting launch for 48-hour delay</b>	<b>30%</b>
<b>Probability of KSC weather prohibiting tanking:</b>	<b>10%</b>
<b>Primary concern(s):</b>	Cumulus clouds; anvils from thunderstorms over the Gulf of Mexico and West Florida.

<b>Sunrise:</b>	6 / 0703 EDT	<b>Sunset:</b>	6 / 1938 EDT	
	7 / 0704 EDT		7 / 1937 EDT	
	8 / 0704 EDT		8 / 1936 EDT	
<b>Moonrise:</b>	5 / 1830 EDT	<b>Moonset:</b>	6 / 0534 EDT	<b>Illumination:</b> 5-6 September 96%
	6 / 1909 EDT		7 / 0644 EDT	6-7 September 99%
	7 / 1945 EDT		8 / 0754 EDT	7-8 September 100%

**Next forecast will be issued:** 6 September 2006, 0700 EDT